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Increasing HIV prevalence in STD clinic attendees in Delhi, India: 6 year (1995–2000) hospital based study results

EDITOR,—The association between the occurrence of HIV infection and the presence of other STDs has been strongly established. STDs act as important co-factors that promote HIV transmission. The trend of HIV infection in STD clinic attendees, one of the high risk groups, may reflect the trends of HIV epidemic in the community. To estimate the frequency of HIV infection among various STD patients over a period of 6 years from January 1995 to December 2000 and to observe the interrelation between HIV infection and different other STDs, we analysed the HIV status of 1504 STD clinic attendees (M:F ratio 1:0.1, average age of 25.2 years) in Dr RML Hospital, a centrally located major tertiary care centre in Delhi. The breakdown in the number of STD attendees tested for HIV voluntarily out of total STD attendees was as follows: 180 out of 407 (44%) in 1995, 261 out of 513 (51%) in 1996, 245 out of 414 (59%), in 1997, 280 out of 363 (77%) in 1998, 235 out of 368 (63%) in 1999, and 296 out of 442 (67%) in 2000. This variation of percentage from year to year is due to the voluntary nature of testing. HIV testing was done with one of the ELISA/rapid/simple tests. Any reactive serum sample was retested using a different assay. A sample that was positive in both the tests was considered HIV positive. The other STDs were diagnosed clinically and using appropriate laboratory tests.

Out of 1504 STD patients screened for HIV infection, 42 (2.8%) were found to be seropositive (40 males out of 1354 and two females out of 150). Annual breakdown revealed a slow but gradual increase in HIV prevalence (1.7% in 1995, 2.2% in 1996, 2.1% in 1997, 2.5% in 1998, 2.7% in 1999, and 3.4% in 2000). The cumulative prevalence of HIV seropositivity in different STDs is shown in table 1.

HIV positivity was observed in 4.5% patients with GUDs, in contrast with only 1.7% HIV positivity among non-ulcerative STD patients, which is statistically significant ($p > 0.002$). All but one male HIV positive patients gave a history of sexual contact with at least one commercial sexual worker. Out of two HIV positive women, one possibly was infected by her husband and the other from her regular sexual partner; both were not pregnant at the time of HIV testing. Five (19%) HIV seropositive patients had more than one STD.

HIV sentinel surveillance in India shows the HIV epidemic at different stages of evolution in different states of India.[1] Six out of 32 states have HIV prevalence of more than 1% in antenatal clinics (ANC) and are classified as high prevalence states including Maharashtra and Tamil Nadu. In seven other states the ANC rates are less than 1% but prevalence among STD clinic attendees is more than 5% classified as moderate prevalence. The remaining 19 states including Delhi are low prevalence states because HIV prevalence among STD attendees is less than 5%.[1 2] The HIV sentinel surveillance data of Delhi show 1.6% and 3.2% HIV infection in 1998 and 2000, respectively, among STD attendees from four other major STD clinics in Delhi, where anonymous HIV testing was done from VDRL blood samples.[3] These data as well as ours are comparable and support the belief that Delhi is still in a low level epidemic category.

From the experience of the Mwanza trial in Tanzania and the Rakai trial in Uganda, it is speculated that the effect of STD control on HIV transmission may decrease with the maturation of the HIV epidemic.[4] Therefore, it is high time to extend vigorous intervention programmes in all high risk groups as well as the general population of this city which is still in the early epidemic phase to ensure this cost effective opportunity is not missed.

H K KAR
R K JAIN
P K SHARMA
R K GAUTAM
A K GUPTA
S K SHARMA
CHARU HANS
VEENA DODA
Department of Dermatology, STD, Microbiology and Blood Bank, Dr RML Hospital, New Delhi - 110001, India

Correspondence to: Dr H K Kar, DII/A-71, South Moti Bagh, New Delhi - 110021, India
hkkar_2000@yahoo.com

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Table 1 Frequency of HIV seropositivity in different sexually transmitted diseases

Type of STDs	*No of patients having same STD*	*No of patients found HIV seropositive*	*Seropositivity rate (%)*
Group I, ulcerated STDs			
Syphilis	222	10	4.5
Chancroid	200	10	5.0
Genital herpes	162	7	4.3
Donovanosis	4	0	0
Lymphogranuloma venereum	17	0	0
All ulcerative STDs	605*	27	4.5
Group II, non-ulcerative STDs			
Non-gonococcal urethritis	102	2	2
Condylomata accuminata	291	7	2.4
Gonococcal urethritis	191	3	1.6
Vaginosis	77	1	0.5
Balanoposthitis	226	2	0.9
All non-ulcerative STDs	899*	15	1.7
All STDs	1504*	42	2.8

*The discrepancy in total number of patients in both groups is due to the presence of more than one STD in some patients.

Genital piercing and sexually transmitted infections

EDITOR,—An interesting observation was noted about patients with genital piercing in our clinic. We looked at 12 case notes of patients retrospectively who attended our clinic for sexual health screening in the past 12 months. There were seven males and five females in the age group 22–36. Looking at the results of their screening tests for STIs, none of the males had chlamydia. Interestingly, four out of six female contacts of these males, who also attended for screening, were found to be positive for chlamydia detected by enzyme immunoassay (EIA). None had gonorrhoea. It was also noted that none of these female contacts had their genitals pierced. Of the five females who had their genitals pierced, three had chlamydia, one had genital warts, and one was found to have bacterial vaginosis. Their corresponding male contacts again with no genital piercing also had chlamydia and genital warts. Two other contacts did not attend but were said to be asymptomatic. The method of genital piercing in males was with the so called Prince Albert ring (famously worn by Prince Albert) where the metal ring is inserted through the external urethra and glans penis (fig 1). In the females, however the urethra is not involved and the piercing is mostly through the clitoris or vulva. We wondered whether this involvement of the urethra in males was significant. It appeared that there was a protective effect in males despite having chlamydia positive female sexual partners. Possible mechanisms could be slow release of metal ions having an antibacterial effect, the presence of epithelial metaplasia or a chronic inflammatory process contributing to a local immune response. We do acknowledge that this is a very small cohort and these findings may be by chance or can be explained by the low sensitivity of EIA.

Genital piercing is becoming more fashionable in the Western world and is performed to enhance sexual pleasure and also for cosmetic effect. It was traditionally practised in the tribal population of India and Africa, mostly for ritual and cultural reasons. Metal or ivory studs or rings or bars are commonly used. The metals can be made of steel or various other alloys containing iron, copper, zinc, and

Figure 1 A Prince Albert ring inserted through the external urethra and glans penis.